

# Improved schools a boost for education

By YUAN SHENGGAO

Wang Zihan, a student at the Dongfang School in Weifang Hi-Tech Industrial Development Zone, had a lot of good news to share with his mother after the first day of his school's new semester in September.

The school, operated by the Weifang Dongming Education Group, had installed new desks, new playground equipment and new labs. Wang was also excited to see that the classroom was less crowded, thanks to a reduced student-to-teacher ratio.

"There are about 40 students in my class," Wang said. "The students sitting at the back of the classroom can see the blackboard clearly. There are also more spaces for physical activities after class."

In recent years, the zone took a series of measures to reduce the number of students in each class. New school construction has been



A foreign teacher takes class at Jinma school in Weifang Hi-Tech Industrial Development Zone.

seen as the most effective way to solve the overcrowded classroom problem in the zone.

In addition to Jinma school, the zone started construction and operation of seven new schools in 2018, making room for an additional 9,560 students upon completion, according to zone officials.

"The zone has invested a combined 1.32 billion yuan (\$191.82 million) to build or expand 11 schools since 2015. Those schools will add 12,000 students' positions to our education system, which makes total positions offered in the zone doubled from three years ago," said Liu Mincheng, director of department of planning and construction at the zone's education bureau.

Teacher recruitment has also become a key task of the zone. In 2018, 197 top graduates and experienced teachers joined the zone's school system.

Reduced class size also helps to enhance education quality at schools.

Yin Baoli, a teacher at the Dongfang School, said teachers now have more time to look after individual students and to study how to make classroom teaching more attractive to students.

Schools are also building facilities such as 3D printing workshops and robot making centers for students to expand their interests.

"After three years of effort, all schools in the zone are reporting better education quality and hardware. Parents are seeing their kids have better study capacity and comprehensive ability," said Yang Dongyan, director of the basic education office at the zone's education bureau.

The zone is taking measures to ensure the best use and balanced distribution of education resources. The establishment of education groups such as Weifang Dongming Education Group in the zone enables excellent teachers to be swapped among schools. Every school in the group will have teachers of varying ages and years of teaching experience.

The zone has achieved its goal of reducing student numbers to 45 or lower in each class in primary and high schools. Students can get more teachers' attention and appraisals. This should result in increased confidence, additional knowledge and increased time to explore their personal interests, according to the zone.

Zhuang Jian contributed to this story.



A technician with Shengrui Transmission examines a front-drive 8-gear auto transmission unit produced by the company.

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# Shandong's economic renewal gets hand from high-tech zone

Innovation by companies in development area creating new business drivers

By YUAN SHENGGAO

The innovations being introduced by companies in Weifang Hi-Tech Industrial Development Zone are playing a big role in Shandong's effort to replace old economic development drivers with new ones.

Consider Weichai Group, a Global Fortune 500-listed company that has long been promoting independent innovation to achieve long-term growth. It developed the first in-cylinder direct injection natural gas engine with strong power in China. It also developed the first electronic control system in China.

"We are developing an engine that can reduce vehicles' emission to nearly zero," said Guo Shenggang, deputy chief designer of Weichai Power.

Weichai's leaders are proud of the technologies the company has introduced, as well as its emphasis on research and development. There are some 2,500 R&D personnel in engines alone, and one of Weichai's engines, the LandKing, won the second prize in the 2012 National Science and Technology Progress Awards. Weichai's powertrain system won the grand prize from the National Science and Technology Progress Award last year.

Weichai is also responsible for building a key national laboratory to enhance the reliability of internal combustion engines.



We are developing an engine that can reduce vehicles' emission to nearly zero."

Guo Shenggang, deputy chief designer of Weichai Power

Tan Xuguang, chairman of the board of Weichai, said the company's innovation drive is not limited to a product or production process. Rather, it is developing a new business model, which can be applied to upstream spare parts suppliers as well as to automobile and machinery makers.

GoerTek, a pioneer in micro-loudspeaker, microphone and voice receiver production, is reporting rapid growth in the development of virtual reality and smart wearable equipment.

Xu Dapeng, marketing director of GoerTek, said the company now produces about 70 percent of the world's mid- to high-end virtual reality headsets.

"Though the growth of the smartphone market slowed down in recent years, the market for hardware used in smart products has just begun to boom," Xu said, adding that the company plans to achieve better growth in coming

years by exploring opportunities in smart earphones, furniture and wearable technology.

Apart from Weichai and GoerTek, the zone also has many other leading businesses such as Shengrui Transmission Corporation — developer of the world's first front-engine, front-drive 8-gear auto transmission — Foton Shandong Multifunction Plant and Weifang Special Steel.

Officials from the zone said that those leading players' efforts in promoting technology development, developing brand awareness and expanding markets are key elements in the zone's economic transformation.

## SME development

As is the case in many other cities across China, small and medium-sized enterprises are forming a development foundation for the local economy.

Hoaco Automation Technology, a precision equipment manufacturer in the zone, has reported breakthroughs in die cutting machines development and production.

Ding Chunhui, deputy general manager of Hoaco, said the company has applied many patented technologies that can help users save costs and reduce their workforce size, as well as improving efficiency and accuracy.

Ding said Hoaco has a market share in China of more than 50 percent. It is also able to pro-

vide integrated services covering equipment production, technology support and after sales needs. Shandong Tianrui Heavy Industry, Shandong Yinlun Heat Exchange System and Shandong Novoshine Optoelectronics reported that overall year-on-year industrial output value increased 44.9 percent, 23.7 percent and 57.4 percent, respectively in the first nine months of this year.

## Better environment

In 2018, the zone provided a broad range of support to serve companies' ever-changing demands. It relocated residents in shanty towns to provide more room for companies to their expand operations.

This year, the zone unveiled new recruitment initiatives, aimed at bringing in fresh blood. The policies include providing enhanced benefits for urgently needed staff, as well as greater government support for university graduates



## New Media Center

Weifang Hi-Tech Industrial Development Zone signed an agreement with Xinhua News Agency in early November to build an integrated media platform, combining traditional media and online media to better serve local demand for news coverage.

Officials said the zone — ranked No 21 this year among 157 national-level development zones in terms of comprehensive development strength — has paid close attention to news coverage to better guide and serve local residents, as it was called on to do by the central government.

The regional media center has an editorial board, interview center, news generation center, branding and promoting center and offices, to serve various media needs.

It also has Chinese and English-language newspapers, radio broadcasting, a television station, an official website and online information distribution channels on platforms such as WeChat and Sina Weibo.

Xinhua, the State-run press agency, has deep and rich media resources, a strong information distribution capacity and a professional think tank.

The partnership will help the zone take a leading role in building an integrated media platform in Shandong or even in China, according to the zone.

The zone's media center will further enrich its offering, expand and improve live cloud broadcasting capabilities, and grow new media coverage with support from Xinhua.

It will also expand collaboration with Xinhua in generating news coverage, overseas expansion and the training of staff.

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seeking to start new businesses. Experts from both China and other countries have joined forces with companies in the zone to boost local innovation capacities.

In line with its commitment, the zone also partnered with leading fund management firms such as United States' private equity firm KPCB and China's GSR United Capital to provide companies with various types of financial support.

The zone continues to cut red tape so that companies can achieve more efficiency in their daily operations. It separated business operation permits from business licenses and all business registration processes can now be completed online.

Chu Baojie, Weifang's director of communications and Party chief of the zone, expects that the region will make breakthroughs in replacing old economic drivers with new ones in the next five years. Shandong's goal is for new drivers to lead regional economic development by 2022.

# Weichai Group roars ahead with global expansion plans

By YUAN SHENGGAO

Weichai Group, the heavy-truck and components developer and manufacturer in Weifang Hi-Tech Industrial Development Zone, has vowed to develop itself into a leading global company.

The company said on Dec 2, during its annual overseas dealers gathering, that it set a goal to report \$100 billion in revenue in 2030, of which, half will be generated from overseas markets.

The gathering attracted nearly 1,000 business representatives from 57 countries and regions. Participants shared their opinions on how Weichai can more effectively bring its products to the world's markets so it can achieve its ambition to be an international industrial equipment production group with leading world-class technologies.

Alam, a Weichai dealer from the Indian state of West Bengal, revealed that Weichai has achieved 67 percent market share in the West Bengal's ship engine trade market because of the company's premium services, sufficient supply of components and wide distribution channels.

Alam said his partnership with Weichai started in 1992.

"We are members of the Weichai family and Weichai is like a guardian to us," Alam said.

"We want to make Weichai's



Weichai Group, a leading heavy-truck and components developer and manufacturer, announces its drive to become a leading global company at a conference held on Dec 2.

products the most trustworthy in every market segment of the related industry."

After years of development, Weichai has developed an overseas expansion model which includes product exports, local production, technology exports and acquisitions.

In 2009, its subsidiary Weichai Power acquired French marine engine developer and producer Moteurs Baudouin.

In 2012, Weichai Power bought a 25 percent stake in German forklift-maker Kion Group and a 70 percent controlling stake in Kion's subsidiary, Linde Hydraulics. In the same year, Weichai purchased a majority

stake in Italian yacht-maker Ferretti Group, to tap into the luxury yacht sector.

It has built production plants in India, Thailand and Belarus. It has also exported its advanced technologies to Ethiopia and Myanmar to support local industrial upgrades. It has also sped up expansion in regions such as Southeast Asia, the Middle East, North Africa and South Asia. Its products are now being sold to 110 countries and regions, said the company.

Last year, Weichai reported 220 billion yuan (\$31.98 billion) in sales revenue. Some 40 percent of that came from overseas markets and

it is now a leading Chinese manufacturing brand in foreign markets, according to the company.

Weichai reported nearly 190 billion yuan in revenue for the first 10 months of 2018.

Kion's total number of orders increased 17 percent year-on-year in the first six months of 2018. Linde Hydraulics has also reported an outstanding performance, Weichai said.

Weichai's new plant, built along with Belarus' MAZ, in the China-Belarus Industrial Park, started trial operations on Nov 18.

Hu Haihua, general manager of MAZ-Weichai, said that construction of the new factory started in April. The builders overcame many problems to ensure the project was completed on time.

The MAZ-Weichai factory, with annual production capacity of 20,000 diesel engines, is the first diesel engine production project between China and Belarus, according to Weichai.

Apart from Belarus, Weichai also has an operations center in the Middle East.

It also established a partnership with companies such as German giant Bosch, UK group Ceres Power and Canada's Ballard Power and Westport, to strengthen its position in the new energy sector.

Tan Xuguang, chairman of the board of Weichai, said that the purpose of internationalization was not just to expand Weichai's operations

to overseas markets. It was more about optimizing Weichai's business structure and improving any weaknesses, he said.

Tan said internationalization would help Weichai learn about advanced technologies and achieve high-quality development.

Weichai claimed that all its overseas acquisition projects have reported positive results.

In 2015, Weichai and Linde Hydraulics jointly developed factory in Weifang started operations. A powertrain system which uses Weichai's engine and Linde Hydraulics' hydraulics system was produced in the factory and rapidly entered China's high-end engineering machinery and agricultural machinery sectors.

Kion, with support from Weichai, successfully acquired US-based logistics company Dematic for \$2.1 billion in 2016. The deal allowed Weichai to develop a smart logistics industrial chain and further optimize its business structure.

In 2017, Kion's sales revenue was 7.7 billion euros (\$8.73 billion), an increase of 37 percent year-on-year. The net profit was 430 million euros, up 73 percent on the previous year. Demotic made a significant contribution to Kion's growth, according to Kion.

Gordon Riske, CEO of Kion, said the partnership with Weichai was a successful example of cooperation between Chinese and German companies.